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## **5.10 TRAFFIC AND TRANSPORTATION**

This section addresses potential impacts associated with traffic and transportation systems in the project area that may result from construction and operation of the Salton Sea Unit 6 (SSU6) Project. The analysis considers the regional and local roadways and railroads, current and project-related traffic conditions, access to the project site, construction and operation-related parking requirements, and transportation of hazardous materials related to operation of the plant. It also provides an assessment of potential impacts resulting from the construction and maintenance of the well pads, production pipeline, brine injection pipelines, injection wells, power transmission line and water supply lines.

Section 5.10.1 describes the environmental setting of the project area and presents the existing conditions of the transportation system; Section 5.10.2 assesses the potential environmental impacts of construction and subsequent operation of the project on traffic and the existing transportation system; Section 5.10.3 addresses the cumulative impacts of the proposed project in relation to other cumulative projects identified in Section 5.17. Section 5.10.4 presents the mitigation measures proposed to minimize the potential impacts of the project; and Section 5.10.5 addresses pertinent laws, ordinances, regulations, and standards. References are presented in Section 5.10.6. Tables and figures are found at the end of this section.

### **5.10.1 Affected Environment**

#### **5.10.1.1 Regional Setting**

The affected environment relative to the generating project is discussed in both a regional and local context. The regional setting includes the existing and planned public and private roads, rail lines, and pipelines considered in the transportation impact analysis. Figure 5.10-1 (Regional Transportation Setting) depicts the affected environment as discussed below and illustrates the relationship of proposed project facilities to major roads, potential access roads, and highways in the project area. Figure 3.1-2 depicts the location of SSU6 project components.

The following plans and programs describe the framework for managing the transportation resources in the project area.

##### **5.10.1.1.1 Southern California Association of Governments Regional Transportation Plan (SCAG)**

SCAG is the designated Metropolitan Planning Organization (MPO) for the six county SCAG Region comprising of the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The Association of Governments is mandated by the federal government to research and draw up plans for transportation, growth management, hazardous waste management, and air quality. The 2001 Regional Transportation Plan presents an assessment of the overall growth and economic trends in the SCAG Region for the years 2001-2025 and provides strategic direction for investments during this period.

##### **5.10.1.1.2 Imperial County General Plan**

The Imperial County General Plan is the master “blueprint” for the way county residents, county officials and planning staff would like to see Imperial County grow and develop. The Circulation

and Scenic Highways Element outlines the goals and policies for the County's transportation and circulation system, as well as to provide a policy framework in the implementation of the scenic highways program by providing protections and enhancement of the County's scenic resources for both rural and urban scenic highway corridors.

#### **5.10.1.1.3 Highways and Roadways**

The transportation network of Imperial County and specifically the project study area is composed primarily of local roads and State maintained highways that have provided access to the farming communities and the incorporated cities for decades. Currently, Imperial County's highway system plays a major role in the movement of goods originating from both interstate and international sources and will continue to attract use as new developments occur within Imperial County as well as the surrounding communities.

As illustrated on Figure 5.10-1, the project area is primarily served by state route (SR) 78/86 highway (SH) and SH-111. SR-78 is an east-west highway that provides connection to San Diego County to the west. SR-86 is a north-south highway connecting I-8 and I-10 in Imperial and Riverside counties and plays a major role in the movement of farm products from Imperial County and Coachella Valley to the Los Angeles distribution hubs. SH-111 is a north-south highway originating from the Mexican border to the south and connecting to I-10 to the north. These highways are under the jurisdiction of the California Department of Transportation (Caltrans). Information regarding existing traffic volumes, truck traffic, capacity, and Level of Service (LOS) on these highways is discussed in detail in Section 5.10.1.2.

Weight guidelines and restrictions for vehicles traveling on freeways and highways include limits on single-axle loads of 20,000 pounds. The load on any one wheel, or wheels supporting one end of an axle, is limited to 10,500 pounds. The front steering axle load is limited to 12,500 pounds. Furthermore, the maximum overall gross weight is limited to 80,000 pounds, and the gross weight of each set of tandem axles is limited to 34,000 pounds.

In consultation with Caltrans District 11 and Imperial County Public Works Department, Traffic Division, it was determined that there are no major long-range improvements planned for the regional transportation system in and around the immediate vicinity of project study area.

#### **5.10.1.1.4 Railroads**

The Southern Pacific Railroad mainline traverses Imperial County in a northwesterly direction from the Arizona border near Winterhaven toward Riverside County to north. The closest railroad alignment to the project site is the southerly branch of the Southern Pacific line originating from the mainline in Niland and provides rail service to Calipatria, Brawley, Brawley, Imperial, El Centro, Calexico, and Mexico.

#### **5.10.1.1.5 Pipelines**

A network of pipelines within the study area is used primarily as conveyances for gas and petroleum products. The 20-inch Kinder Morgan pipeline is used to deliver and transport liquid petroleum products within Imperial County. The Southern California Gas Company uses twin 10-inch lines to deliver natural gas to Niland, Calipatria, Brawley, Imperial, El Centro, Heber,

and Calexico; and branch lines serve Holtville, Westmorland, Seeley, NAF, and Plaster City. Rural residents are served by laterals from the branch lines.

#### **5.10.1.1.6 Bicycle Routes**

The Imperial County Bicycle Master Plan proposes a network of countywide bicycle routes classified as follows:

- Class I Bicycle Routes – completely separated from vehicular traffic and within an independent ROW or the ROW of another facility.
- Class II Bicycle Routes – part of the roadway or shoulder is marked by pavement markings or barriers. Vehicle parking, crossing, or turning movements are permitted within the bikeway.
- Class III Bicycle Routes – shares ROW with motor vehicles and are designated by signings only. There is minimal protection from shared vehicle traffic but signage helps to make the motorist aware of the presence of the bicyclists.

Within the project study area, County Bicycle Route 7 (Sinclair/Gentry/Rutherford/SH-111) is a Class II route and begins at Sinclair Road to the north Calipatria and continues westbound to Gentry Road and heads southbound toward Westmorland, then heads east via Boarts Road, then north via Kalin Road and then eastbound to Rutherford Road to SH-111 and then heads north to Calipatria. From downtown Calipatria, Route 7 heads west via Eddins Road then north via English Road and back to Sinclair Road (see Figures 5.10-2A and 5.10-2B). The total route is 29.8 miles, of which approximately 7 miles are within the incorporated cities of Westmorland and Calipatria. Bike activity within the study area is recreational, and there are no biking-versus-traffic issues in the area.

#### **5.10.1.2 SSU6 Facility**

The proposed SSU6 Facility, including the proposed water supply pipeline, is on the southeast corner of Severe Road and McKendry Road on 80 acres within a 160-acre parcel of relatively flat terrain approximately 1,000 feet southeast of the Salton Sea. The project site is primarily bounded by Severe Road to the west, McKendry Road to the north, Boyle Road to the east, and Peterson Road to the south. The transportation setting of the plant site within the surrounding region is depicted in Figure 5.10-1. Figure 5.10-2A illustrates the major roads, potential access roads, and highways immediately near the proposed plant site.

Access to the generating plant site from east via SH-111 will be primarily through westbound Sinclair Road, southbound Gentry Road, westbound McKendry Road and southbound to Boyle Road to the project site. Access from the south via SH-78/86 will primarily through northbound Forrester Road, eastbound Walker Road, northbound Gentry Road, westbound McKendry Road, and southbound Boyle Road to the project site. The plant's administration and control building parking lot and all in plant roads will also be asphalt paved.

Table 5.10-1 presents data pertaining to the existing traffic characteristics on highways potentially affected by the proposed project, including:

- SH-78/86 from B Street to Center Street (Forrester Road)

- SH-78/86 from Center Street (Forrester Road) to H Street
- SH-111 from Sinclair Road to Route 115 East

The information provided in Table 5.10-1 includes the annual average daily traffic (AADT), annual average peak hour traffic, and annual average daily truck traffic, highway capacity, and LOS.

The LOS criteria for highways is established by Caltrans, and takes into account numerous variables such as AADT, capacity, grade, environment (urban or rural), and other considerations as appropriate (see Table 5.10-2). According to Caltrans policy, LOS D is acceptable for planning purposes, while LOS E and F are considered unacceptable. LOS criteria for the local roadway system are defined by the County of Imperial General Plan Circulation and Scenic Highway Element and have set a standard of LOS "C." Consequently, levels of service "A," "B," and "C" are considered acceptable, while "D," "E," and "F" are unacceptable. The above service values are defined by the 2000 edition of the Highway Capacity Manual, the latest edition of the cited reference, the 1985 edition of the Highway Capacity Manual. It must be noted that the Circulation Element policy acknowledges the aforementioned level of service standards may not be obtainable on some existing facilities where abutting development precludes the acquisition of additional ROW needed for changes in facility classification.

All of the highways potentially affected by the proposed project are currently operating better than LOS D. Thus, all of the highways in the project area are operating at acceptable levels as shown in Table 5.10-1.

Truck traffic on highways serving the project area is high. As shown in Table 5.10-1, truck traffic (as a percent of total traffic) in the project area is heaviest along SH-78/86 in Westmorland with 40 percent on the segment east and 25 percent on the segment west of Forrester Road. SH-111 has 21 percent truck traffic between Sinclair Road and downtown Calipatria.

The primary east-west access to the project site will be via Sinclair Road. Eddins Road is another east-west parallel route but is not considered as a primary project access route. The primary north-south access roads are Boyle Road and Gentry Road which becomes Forrester Road south of Walker Road toward the town of Westmorland, these roadways provide the most direct north-south connections to the project site.

Average Daily Traffic (ADT) counts from the Imperial County Traffic Count Program database were obtained for the local roadway segment analysis. Additional ADT counts were collected on the second week of January 2002. Table 5.10-3 summarizes the existing local roadway level of service analysis. The results of the level of service analysis indicate that all roadway analysis segments are currently operating at acceptable Level of Service A.

In addition to the local roadway segments, six study intersections have been identified for intersection level analysis in consultation with Imperial County Department of Public Works (DPW). These study intersections were selected because they are the most likely intersections that could be impacted because of the proposed project. Table 5.10-4 displays the existing intersection level of service analysis. The results of the analysis indicate that all study intersections operate at acceptable LOS B or better.

**5.10.1.3 Construction Laydown Area**

A proposed construction laydown area will be located on the south side of the proposed power plant site. The proposed laydown area will be accessed via an access road from Boyle Road along the middle of the parcel between McKendry Road and Peterson Road. Truck traffic would enter on the north along McKendry Road (average of 8 truck trips a day), while administration and all other traffic would enter along the access road from Boyle Road.

**5.10.1.4 L-Line Interconnection**

The proposed L-Line Interconnection will tie-in to the Imperial Irrigation District's (IID) existing "L" line, west of the SSU6 plant site. From the SSU6 switchyard, the L-Line interconnection continues approximately 14 miles southbound along Lack Road and crosses approximately 3 miles of BLM land to connect with the L line southwest of Bannister Road/Highway 86 intersection. As shown on Figures 5.10-2A through 5.10-2E the road network in this general flat area forms a north-south and east-west grid pattern and the transmission line route crosses many roads.

**5.10.1.5 IID Midway Interconnection**

In addition to the L-Line Interconnection line discussed above, a proposed IID Midway Interconnection would connect the SSU6 facility to the Midway Substation to the east. The proposed IID Midway Interconnection would be approximately 16 miles and generally runs along Hooper Road going east to the existing Midway Substation. As shown on Figures 5.10-2A through 5.10-2E, the road network in this general flat area forms a north-south and east-west grid pattern and the transmission line route crosses many roads.

**5.10.1.6 Well Pads**

Extraction and injection of the fluids required for plant operation would be provided via eight new production and injection well pads. The well pads are west, north, and south of the SSU6 site (see Figure 5.10-2A). Each well pad abuts at least an existing developed and maintained road except for Production Well Pad OB3. The road to this well pad is narrow and provides access to quarry activities near OB3.

**5.10.1.7 Production and Injection Pipelines**

Both production and injection fluid processes associated with the SSU6 facility would require the use of transmission pipelines from the production well pads to the facility as well as to the injection well pads. The proposed pipeline routes are parallel and adjacent to existing roads.

**5.10.2 Environmental Consequences****5.10.2.1 Significance Criteria**

According to the guidelines established in the California Energy Commission (CEC) Staff Application for Certification Instructions and those set forth in the California Environmental

Quality Act (CEQA), Appendix G (1), (PRC Section 21000 et seq.), a project would result in a significant effect when it will “cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system,” or when it:

- Generates substantial additional vehicular movement
- Impacts existing parking facilities or promotes demand for new parking facilities
- Substantially impacts existing transportation systems
- Alters present patterns of circulation or the movement of people and/or goods
- Alters waterborne, rail, or air traffic
- Increases traffic hazards to motor vehicles, bicyclists or pedestrians.

Significant impacts would also include the failure to comply with federal and state regulations governing the transportation of hazardous materials, or the generation of traffic volumes violating local LOS standards.

#### **5.10.2.2 SSU6 Facility**

The proposed generating plant may result in short-term impacts to traffic and the transportation system during the construction phase and long-term impacts during plant operations.

Construction of the generating plant, including the water supply pipeline, will result in a temporary increase in traffic associated with the movement of construction vehicles, equipment, and personnel on the transportation network serving the project area. The project will use proper signs and traffic control measures in accordance with Caltrans and Imperial County requirements during peak traffic hours in peak construction. The project will also coordinate construction activities with appropriate Caltrans, California Highway Patrol, Imperial County departments, and other jurisdictions to maintain traffic flow and safety, including well pad construction near road segments, pipeline crossing, construction of new power lines, and transport of oversize and overweight loads on State and County roadways.

Operation of the plant will result in long-term, minor increases in traffic associated with plant employees and movement of vehicles serving the plant. Both construction and operation impacts are identified and discussed in detail below as they relate to traffic and transportation in the project area.

##### **5.10.2.2.1 Construction-Related Impacts**

To assess the magnitude and directional variation of vehicle trips associated with the construction of the generating plant facility, vehicle trip generation and distribution were analyzed using the workforce data from Table 3.4-1 and construction delivery data from Table 3.4-3.

#### **Workforce Vehicle Trips**

Table 5.10-5 summarizes the estimated origins and distribution of the construction workforce. Based on a worst-case scenario, it is assumed that each worker will drive a separate vehicle to the project site, making two trips per day (one round trip to the site and back). Therefore, construction of the project could result in a total of approximately 898 worker vehicle trips per day during the peak construction period as shown in Table 5.10-6. Parking for construction personnel and visitors will be provided in an area on or adjacent to the project site.

***Workforce Trip Distribution***

It is assumed that workers will come from Imperial and adjoining counties. As shown in Table 5.10-5 the availability of local and non-local construction workforce temporarily housed in hotels/rentals will be originating from the following geographical areas:

- 25 percent from Niland
- 25 percent from Calipatria
- 25 percent from Brawley
- 25 percent from El Centro

***Preferred Routes of Travel by Workers***

It is assumed that the route preferred by construction workers commuting from within Imperial County will be primarily via Sinclair Road from SH-111 and Gentry Road/Forrester Road from SH-78/86. These roadways eventually tie-in to the local roadway circulation system and to the project site via McKendry Road and Boyle Road.

***Construction Equipment and Material Deliveries***

Construction of the generating plant will require the use and installation of heavy machinery and associated systems and structures. Heavy equipment will be used throughout the construction period, including trenching and earthmoving equipment, forklifts, cranes, cement mixers, and drilling equipment.

In addition to deliveries of heavy equipment, construction materials such as concrete, wire, pipe, cable, fuels, reinforcing steel, and consumables will be delivered to the site by truck. An estimated total of 3,979 truck deliveries will be made to the plant site over the course of the 20-month construction period (see Table 3.4-3). Some truck deliveries will include hazardous materials to be used during project construction, as described in Section 5.14-Hazardous Materials Handling. No acutely hazardous materials would be delivered to or used by the SSU6 Project. Deliveries will typically occur between 7:00 a.m. and 5:00 p.m. on weekdays. It is assumed that most of these materials will be transported from within Imperial County.

In some cases, vehicles used to transport heavy machinery and construction materials and equipment will require transportation permits where they are in excess of size thresholds set forth in the California Vehicle Code Section 35780. Vehicles used during project construction that are over-size, over-weight, over-width, or over-length will require a transportation permit from Caltrans.

***Transport of Heavy Equipment and Machinery***

Whenever possible and cost-effective, rail lines will be used to transport heavy equipment and machinery identified in Table 3.4-2 to minimize truck transport. The Southern Pacific Railroad branch originating from the main alignment passing through Niland parallels SH-111 and provides rail service to Calipatria, Brawley, Imperial, El Centro, Calexico, and Mexico. A switchyard to the east of SH-111 at Sinclair Road is an ideal unloading point and would minimize travel times and roadway exposure of over-size, over-weight, over-width, or over-length cargoes.



***Distribution of Truck Traffic and Routes of Travel***

In total, construction of SSU6 is estimated to require approximately 3,979 truck deliveries to the plant and off site over a 20-month construction period (on average there would be approximately 199 truck deliveries per month). During the 12th month after notice-to-proceed (NTP), the peak construction truck delivery will reach 539 truck deliveries per day (see Table 3.4-3). This is mainly attributable to the peak deliveries of concrete and rebar to the project site. Truck haul operations exceeding 300 daily truck deliveries would occur during the 11th to the 14th month from NTP.

It is assumed that most of the truck deliveries would be routed via SH-111, then exit west to Sinclair Road south to Gentry Road, west to McKendry Road and south on Boyle Road to the construction laydown area.

***Trip Generation Analysis***

Construction of the generating plant facility will occur over an estimated 20-month period with varying levels of manpower, construction delivery and equipment use. The two critical project trip generation factors involve manpower trips and construction truck deliveries. A trip generation analysis was therefore conducted to determine the worst-case combination of these two factors based on their peak month trip generation.

***Construction Truck Delivery Peak***

The peak number of construction truck trips would occur during 12th month after the NTP. During the peak construction delivery period, there would be 539 monthly truck trip deliveries. Using a two-car passenger-car equivalent (PCE) for each truck, the truck trips would equal 1,078 monthly car trips. Assuming a 22-day work month, the truck trips would equate to 49 daily car trips. During that month, there would be 361 daily worker trips.

***Workforce Vehicle Peak***

The peak workforce trips would occur during the 19th month after the notice-to-proceed with an estimated 449 daily worker trips. During that month, there would be 179 monthly truck deliveries. Using a two-car PCE for each truck, the truck trips would equal 358 monthly car trips, or 16 daily car trips assuming a 22-day work month.

Peak Month	Daily Construction Truck Trips	Daily Worker Trips	Combination Total
Construction Truck Peak Month (12)	49	361	410
Workforce Peak Month (19)	16	449	465

***Combined Truck and Workforce Trips***

Based on the worst-case scenario, the peak construction workforce month with associated construction truck trips would generate the most number of vehicle trips with a combined total of

465 daily trips. This peak construction traffic combination is the worst possible case condition and will be used as the basis for the traffic analysis.

### ***Impacts of Combined Traffic on Highways***

Using the travel pattern assumptions for construction workforce and construction truck deliveries described above, Table 5.10-7 presents the increased traffic on local highways and anticipated levels of service resulting from the construction workforce and truck delivery commuting to and from the project site.

As shown in Table 5.10-7, the segment of SH-111 between Sinclair Road and SH-115 (East) would experience the highest increase in combined truck and workforce traffic with approximately 4 percent increase, while SR-78/86 between B Street and Center Street (Forrester Road) would experience approximately 1 percent increase. The other study highway segment of SR78/86 between Center Street (Forrester Road) and H Street would experience less than 1 percent increase in combined truck and workforce traffic. Based on the results of the highway segment analysis during the peak construction month, the proposed project would not significantly affect the study highway segments. All study highway segments are forecast to operate at LOS B or better.

### ***Impacts of Combined Traffic on Local Roads***

The local roadways that are most likely to be impacted by construction worker and truck deliveries will be Sinclair, McKendry, Lindsey, Eddins, Boyle, and Gentry Roads. The projected added trips along these roadways and projected LOS along these roadways are presented in Table 5.10-8. During the peak construction period, traffic on Sinclair Road west of SH-111 will increase by 478 vehicle trips per day, resulting in a traffic increase of 41 percent.

As shown in Table 5.10-3, Sinclair Road has a LOS C capacity of 7,100 vehicles per day. Because the existing average daily traffic on this road is relatively low (1,160 ADT), the roadway is able to accommodate large increases in traffic without reducing its LOS to a significantly adverse level (i.e., LOS E or F). Thus the peak construction period traffic increases estimated above will still be far below the capacity of Sinclair Road, and will not result in a significant adverse traffic impact (see Table 5.10-8). Similarly, the remaining study roadway segments would continue to experience acceptable LOS A conditions.

### ***Impacts of Combined Traffic on Local Intersections***

The results of the intersection level of service analysis shown in Table 5.10-9 indicate that all study intersections would continue to operate at acceptable Level of Service C or better during both AM and PM peak hour analysis period. These good intersection operating conditions are attributed to the very low existing background traffic and surplus intersection capacity and that adding project construction related traffic in terms of workforce and delivery trips would still result in acceptable levels of service.

#### **5.10.2.2.2 Operation-Related Impacts**

There are no anticipated potential long-term traffic impacts associated with the facility's operational workforce, delivery of hazardous and non-hazardous materials to the site, and hauling

of waste generated during project operation.

Operation of the generating plant will require a labor force of approximately 69 full-time employees of which 28 personnel will be involved in plant operations, which are further divided in 4 rotating shifts. The remaining labor force is composed of 27 maintenance staff, 10 general/administration staff, and 4 management staff. Assuming the worst possible case scenario where all staff would be on site at the same time and that each employee will drive a separate vehicle to work and that they will make one round trip from home to work per day, operation of the plant will generate approximately 138 vehicle trips per day. This worst case operating conditions will not significantly impact the transportation and circulation system within the project study area.

Adequate parking will be available for employees on a paved lot adjacent to the SSU6 facility. It is assumed that most of the permanent workforce will reside in the Calipatria, Niland, Brawley, El Centro and adjacent communities (see Section 5.10.2.1), and that their preferred route to work will be through Sinclair Road, Gentry Road, McKendry Road and Boyle Road. Alternate routes from the south would be via Forrester Road through Westmorland northbound to Gentry Road. These avenues of travel will easily accommodate the operations-related traffic. Additionally, potential employee carpools and ridesharing would further reduce employee-related trips.

During project operation, the facility will generate wastes resulting from processes, routine facility maintenance, and office activities. The operating waste streams and management methods are summarized in Table 3.3-8 (see also Section 5.13). All non-hazardous wastes will be recycled to the extent practical and the remainder removed regularly by a certified waste-handling contractor.

In summary, operation of the proposed generating plant will generate traffic that can easily be accommodated by the existing roadway system. Operation of the proposed generating plant will not generate substantial vehicular movement; alter present patterns of circulation; alter waterborne, rail, or air traffic; substantially increase traffic hazards to motor vehicles, bicyclists, or pedestrians; violate adopted LOS standards; generate traffic for which impacted routes are not suitable; or create demand for new parking that cannot be accommodated by the project design. Therefore, the proposed project is not expected to result in significant impacts on the local transportation system.

### ***Air Navigation***

Title 14, Code of Federal Regulations, determines if a project encroaches on air space. It requires an Applicant to notify the FAA of construction of structures with a height greater than an imaginary surface extending outward and upward at a slope of 10 to 1 from the nearest point of the nearest runway of an airport with at least one runway more than 3,200 feet long. The nearest airport facility is the Calipatria Municipal Airport, approximately 6 miles southeast of the SSU6 facility. The other neighboring airports include Brawley Municipal Airport, Imperial County Airport, and NAF El Centro. It is anticipated that there will be no significant air navigation impacts to the Calipatria Municipal Airport because of the low structure heights of the SSU6 facility, as well as the distance from the plant site to the airport. No impacts are anticipated. Nevertheless, the Applicant and the IID will consult with the Airport Land Use Commission regarding the compatibility of the proposed plant site and transmission lines with flight activities in the area.

**5.10.2.3 Power Plant Site and Construction Laydown Area**

Potential traffic impacts associated with the power plant site and construction laydown area are anticipated to occur only during the construction phase of the project. Construction-related traffic could potentially occur during the movement of heavy equipment, trucks, and workers' vehicles around the construction site and laydown areas. While most of the construction work will not directly impact traffic operations along McKendry Road and Boyle Road, potential traffic crossing related delays and conflicts could occur at or near the entrance of a proposed access road connecting the laydown area to Boyle Road.

**5.10.2.4 Transmission Line Routes**

Potential impacts associated with the L-Line Interconnection and IID Midway Interconnection transmission line routes would include both construction- and operation-related impacts. Similar to the other tasks, construction-related traffic impacts could potentially occur during the movement of heavy equipment, trucks, and workers' vehicles along access routes during the construction of approximately 30 miles of both lines. It is anticipated that this work will not directly impact traffic operations at nearby facilities; traffic generated during the transmission construction will be minimal.

Operation-related impacts may result from the movement of vehicles on access routes during periodic maintenance of the transmission line. Construction and operation impacts are addressed below, and apply to both proposed lines.

**5.10.2.4.1 Construction-Related Impacts**

Several aspects of transmission line tower construction and conductor installation could potentially result in impacts. These include (1) workforce-related traffic, (2) access to proposed tower structure locations, (3) transmission line roadway crossings, and (4) construction equipment and material deliveries. These issues are discussed below.

Engineering and construction of the transmission lines along the route is anticipated to take 21 months. During the peak month of plant construction activity there will be 58 workers concurrently working on the transmission lines off site (see Table 3.4-1). It is assumed that the construction laydown area would provide a staging area for the transmission line to store equipment and materials and to provide field offices. Employees would report to the construction parking area at the beginning and the end of each workday, then distribute themselves as needed to various work sites along the transmission line routes. Employees would report to temporary staging areas along the transmission line route when construction areas are at a location that is distant from the plant site. Based on the results of the traffic analysis for plant site construction activities (Section 5.10.2.2) no significant impacts are expected related to transmission line construction work force traffic.

**Access to Steel Pole Structures**

The proposed transmission line route crosses Severe, Lindsey, and Crummer Roads near the SSU6 site. Additional roadway crossings would occur along the southerly route, which parallel Lack Road and the westerly route, which parallel Bannister Road. The local roadway crossings will occur in

accordance with permitting authority requirements. Adequate barricades and lights will be provided around any temporary traffic barriers at crossings in accordance with California Department of Transportation “Manual of Traffic Controls for Construction and Maintenance of Work Zones,” and California Vehicle Code, Section 21400. Consequently, impacts to traffic would be less than significant.

### ***Construction Equipment and Material Deliveries***

Construction of the transmission lines will require the use and installation of heavy equipment, including various trucks (pickup, truck crane, winch, concrete transit mixer, and vans), earth-moving equipment (backhoes and bulldozers), cranes and cable pulling equipment

In addition to deliveries of heavy equipment, construction materials such as tubular steel pole foundation sections, tubular steel poles, and consumables will be delivered by truck to the transmission line staging sites. It is anticipated that the deliveries will be typically in bulk quantities in the laydown area that will not require multiple trips. Delivery hours and origins are assumed to be the same as identified for the generating plant.

In some cases, vehicles used to transport heavy machinery and construction materials and equipment will require a transportation permit from Caltrans, as described above for transmission line construction.

Given the small number of truck deliveries and the excess road capacity available on the roadways adjacent to the proposed transmission line corridors, traffic impacts associated with construction equipment and materials deliveries for the transmission line are considered insignificant.

#### **5.10.2.4.2      Operation-Related Impacts**

Maintenance of the transmission line system will result in negligible vehicle travel and is therefore unlikely to have any adverse impact on the existing roadways crossed by or located near the transmission line poles.

#### **5.10.2.5      Well Pads**

There are 5 proposed production well pads with 2 wells for each pad resulting in 10 production wells. Additionally, there will also be a total of seven injection wells on three new injection well pads. Two other injection wells, one used to inject cooling tower blowdown and one for the brine pond injection, will be located within the plant facility. Potential traffic and transportation impacts associated with construction of the well pads would be relatively negligible and short term.

##### **5.10.2.5.1      Construction-Related Impacts**

Construction of the well pads will require the movement and installation of heavy equipments as well as material deliveries to the well pad sites. The construction workforce for the power plant site in Table 3.4-1 includes the personnel that would construct the wells and well pads. Given the short distance of both the production and injection well pads to the SSU6 site and construction laydown area, traffic impacts associated with construction equipment and material deliveries are considered insignificant.

**5.10.2.5.2      Operation-Related Impacts**

Except in the unlikely event of an accidental or seismic related injection pipe breakage at the well pads, maintenance activities at both production and injection well pad locations would result in minimal or no disruption of local roadway traffic. Therefore, operations at the well pads are expected to have no long-term or significant impacts on traffic or transportation in the project area.

**5.10.2.6      Production and Injection Pipelines**

Production pipelines connecting the well pads to the plant facility will be composed of 24-inch cement-line carbon steel pipes. There are six identified pipeline roadway crossings and one channel crossing immediately near the SSU6 plant site.

Similar to the production pipelines, the injection pipelines originating from the plant facility toward the injection wells will also be composed cement-lined carbon steel pipes. There are two identified injection pipeline channel crossings and five roadway crossings.

**5.10.2.6.1      Construction-Related Impacts**

Equipment and workforce requirements for construction of the production and injection pipelines are included in the estimates for the power plant (see Table 3.4-1). Traffic impacts associated with construction of the pipelines will be insignificant with only short term and transient interruption of traffic along affected local roadways where pipeline crossings occur.

**5.10.2.6.2      Operations-Related Impacts**

Except in the unlikely event of a pipeline break, maintenance activities along the pipeline route will result in minimal or no disruption of local roads and highways. Therefore, operations of the production and injection pipelines are expected to have no long-term or significant impacts on traffic or transportation in the project area.

**5.10.3 Cumulative Impacts**

Analysis of the available capacity of the regional highways described in this section shows that the regional transportation system serving Imperial County, the Salton Sea Area and specifically the project site, have sufficient capacity to accommodate the proposed project's construction- and operation-generated traffic. Cumulative impacts could potentially occur, however, if construction of the SSU6 project were to overlap with other proposed projects not previously identified in Section 5.17. The following projects have been identified in the Cumulative Impact Analysis.

- State Route 78/111 Expressway (Brawley Bypass) (Project ID1)
- Solar Evaporation Pond Pilot Project (Project ID2)
- IID Water Transfer Agreement (Project ID5)

It is anticipated that the proposed project, in conjunction with the above cumulative projects, would not result in cumulative project impacts because of the following factors or combination of factors, such as distance to SSU6 project site, scheduling timeline for construction and operation, and growth-inducing trip generation potential.

**5.10.4 Mitigation Measures**

Project construction would add substantial traffic to local highways and roadways during the peak construction period. Because of the adequacy of existing highway and roadway capacity, however, these project-related traffic increases are not expected to result in significantly adverse short-term and long-term impacts. Long-term impacts resulting from operation of the proposed SSU6 plant are not expected to adversely affect the roadways, highways, or transportation network in the project area in any significant manner; therefore, no mitigation measures are required. The Applicant will implement the following to facilitate smooth and convenient traffic flow:

- **Tran-1:** If warranted, use proper signs and traffic control measures in accordance with Caltrans and Imperial County requirements during peak traffic hours in peak construction.
- **Tran-2:** Coordinate construction activities with appropriate Caltrans, California Highway Patrol, Imperial County departments and other jurisdictions to maintain traffic flow and safety, including well pad construction near road segments, pipeline crossing, construction of new power lines and transport of oversize and overweight loads in State and County roadways.

**5.10.5 Applicable Laws, Ordinances, Regulations, and Standards**

Based on the information provided in this AFC, the proposed SSU6 Project would comply with the applicable traffic and transportation LORS discussed below. Table 5.10-10 summarizes the applicable LORS and Table 5.10-11 list the agency contacts.

**5.10.5.1 Federal Authorities and Administering Agencies**

**Title 49, Code of Federal Regulations, Section 171-177.** Governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.

The administering agency for the above regulation is the CHP.

The SSU6 Project would conform to this law by requiring that shippers of hazardous materials use the required markings on their transportation vehicles.

**Title 14, Code of Federal Regulations, Section 77.13(2)(i).** Requires an Applicant to notify the FAA of construction of structures with a height greater than 200 feet from grade or greater than an imaginary surface extending outward and upward at a slope of 10 to 1 from the nearest point of the nearest runway of an airport with at least one runway more than 3,200 feet long.

The administering agency for the above regulation is the FAA.

The proposed facility heights would not exceed 200 feet. Therefore, notification to the FAA would not be required.

**5.10.5.2 State Authorities and Administering Agencies**

**California Vehicle Code, Section 353.** Defines hazardous materials as any substance, material, or device posing an unreasonable risk to health, safety, or property during transportation, as defined by regulations adopted pursuant to Section 2402.7.

The administering agency for the above regulation is the California Highway Patrol (CHP).

**California Vehicle Code, Section 2500-2505.** Authorizes the Commissioner of Highway Patrol to issue licenses for the transportation of hazardous materials including explosives.

The administering agency for the above regulation is the CHP.

The SSU6 Project would comply with these codes by requiring that contractors and employees are properly licensed and endorsed when operating vehicles used to transport hazardous materials.

**California Vehicle Code, Section 13369, 15275, 15278.** Addresses the licensing of drivers and the classification of license required for the operation of particular types of vehicles. Requires a commercial driver's license to operate commercial vehicles. Requires an endorsement issued by the DMV to drive any commercial vehicle identified in Section 15278.

The administering agency for the above regulation is the Department of Motor Vehicles (DMV).

The SSU6 Project would comply with these codes by requiring that contractors and employees are properly licensed and endorsed when operating such vehicles.

**California Vehicle Code, Section 31303-31309.** Requires that the transportation of hazardous materials be on the state or interstate highway that offers the shortest overall transit time possible.

The administering agency for the above regulation is the CHP.

The SSU6 Project would comply with this law by requiring that shippers of hazardous materials use the shortest route possible to and from the project site.

**California Vehicle Code, Section 31600-31620.** Regulates the transportation of explosive materials.

The administering agency for the above regulation is the CHP.

It must be noted that the SSU6 Project will not use explosive materials specifically defined in Section 12000 of the Health and Safety Code; however, SSU6 Project would comply with this law by requiring that shippers of potentially explosive materials have the required licenses from the CHP.

**California Vehicle Code, Section 32000-32053.** Authorizes the California Highway Patrol to inspect and license motor carriers transporting hazardous materials.

The administering agency for the above regulation is the CHP.

The SSU6 Project would comply with this law by requiring that shippers of hazardous materials are properly license by the CHP.

**California Vehicle Code, Section 32100-32109.** Requires that shippers of inhalation hazard or explosive materials must contact the CHP and apply for a Hazardous Material Transportation License.

The administering agency for the above regulation is the CHP.

If applicable, the SSU6 Project would comply with this law by requiring shippers of these types of material to obtain the Hazardous Material Transportation License.



**California Vehicle Code, Section 34000-34100.** Establishes special requirements for vehicles having a cargo tank and to hazardous waste transport vehicles and containers, as defined in Section 25167.4 of the Health and safety Code. The commissioner shall provide for the establishment, operation, and enforcement of random on- and off-highway inspections of cargo tanks and hazardous waste transport vehicles and containers and ensure that they are designed, constructed, and maintained in accordance with the regulations adopted by the commissioner pursuant to this code and Chapter 6.5 (commencing with Section 25100) of Division 20 of the Health and Safety Code.

The administering agency for the above regulation is the CHP.

The SSU6 Project would comply with this law by requiring that shippers of hazardous materials are properly licensed by the CHP and hazardous material transport vehicles comply with CHP inspection procedures.

**California Vehicle Code, Section 3500.** Regulates the safe operation of vehicles, including those vehicles that are used for the transportation of hazardous materials.

The administering agency for the above regulation is the CHP.

The SSU6 Project would comply with this law by requiring shippers of hazardous materials to have the necessary permits, inspections and licenses issued by the CHP for the safe operation of the hazardous materials transport vehicles.

**California Vehicle Code Section 35550.** Imposes weight guidelines and restrictions on vehicles travelling on freeways and highways. The section holds that “a single axle load shall not exceed 20,000 pounds. The load on any one wheel, or wheels supporting one end of an axle is limited to 10,500 pounds. The front steering axle load is limited to 12,500 pounds.” Furthermore, the CVC 35551 defines the maximum overall gross weight as 80,000 pounds and adds that “the gross weight of each set of tandem axles shall not exceed 34,000 pounds.”

The administering agency for the above regulation is Caltrans.

The SSU6 Project would comply with this code by requiring heavy haulers to obtain permits, if required, prior to delivery of any heavy haul load.

**California Vehicle Code, Section 35780.** Requires a Single-Trip Transportation Permit to transport oversized or excessive loads over state highways. The permit can be acquired through the Caltrans.

The administering agency for the above regulation is Caltrans.

The SSU6 Project would comply with this code by requiring that heavy haulers obtain a Single-Trip Transportation Permit for oversized loads for each vehicle, prior to delivery of any oversized load.

**California Streets and Highways Code, Sections 117.** Unless otherwise specifically provided in the instrument conveying title, the acquisition by the department of any ROW over any real property for state highway purposes, includes the right of the department to issue, under Chapter 3 (commencing with Section 660), permits for the location in the ROW of any structures or fixtures necessary to telegraph, telephone, or electric power lines or of any ditches, pipes, drains, sewers, or underground structures.

The administering agency for the above regulation is Caltrans.

If applicable, the SSU6 Project would comply with this code by acquiring the necessary permits and approval from Caltrans with regards to use of public ROWs.

**The California Streets and Highways Code, Sections 660, 670, 672, 1450, 1460, 1470, 1480 et seq.** Defines highways and encroachment, requires encroachment permits for projects involving excavation in State Highways, County/City streets. This law is generally enforced at the local level.

The administering agency for the above regulation is Caltrans and Imperial County.

The Applicant would apply for encroachment permits for any excavation in State and County roadways prior to construction.

**California Health and Safety Code, Section 25160 et seq.** Addresses the safe transport of materials, requires a manifest of hazardous cargo, requires a person who transports hazardous waste in a vehicle shall have a valid registration issued by the department in his or her possession while transporting the hazardous waste.

The administering agency for the above regulation is CHP.

The SSU6 Project would comply with this law by requiring that shippers of hazardous materials are properly licensed by the CHP and hazardous material transport vehicles comply with CHP inspection procedures.

**California Department of Transportation Traffic Manual, Section 5-1.1.** Requires a temporary traffic control plan be provided for “continuity of function (movement of traffic, pedestrians, bicyclists, transit operations), and access to property/utilities” during any time the normal function of a roadway is suspended.

The administering agency for the above regulation is Imperial County. The Applicant would file a Traffic Control Plan prior to the start of construction.

### **5.10.5.3 Local Authorities and Administering Agencies**

Imperial County has LORS that specifically address the traffic and circulation associated with the SSU6 Project and the community at large. The Land Use Ordinance and the General Plan Circulation Element were the main sources of the following paragraphs summarizing the applicable LORS and Programs and Policies of the General Plan that address traffic and circulation that could be affected by construction of the SSU6 Project.

#### ***Imperial County***

**Imperial County General Plan, Circulation and Scenic Highway Element, Programs and Policies, 1.0 Circulation and Scenic Highways Plan, c. New Local Roads.** The goal of the Circulation and Scenic Highways Plan is to provide a network of roadway systems for the County. The County requires new development to provide for local roads to serve the direct access needs of the abutting property.

The administering agency for the above policy is the Imperial County Public Works Department (Imperial County DPW).

If applicable, the SSU6 Project would comply with this policy to provide a local road in conjunction with the construction of the proposed project.

**Imperial County General Plan, Circulation and Scenic Highway Element, Programs and Policies, 1.0 Circulation and Scenic Highways Plan, f. Private Streets.** The County may permit construction of private streets within individual development projects with specific conditions outlined in the policy.

The administering agency for the above policy is the Imperial County DPW.

If applicable, the SSU6 Project would comply with this policy to provide a private road in conjunction with the construction of the proposed project.

**Imperial County General Plan, Circulation and Scenic Highway Element, Programs and Policies, 2.0 Ordinance Review.** Zoning Regulation and the setback portions must be reviewed and made to conform to the needs of this Element. Ensures that future construction will not interfere with present and potential highway needs. Analyzes the adequacy of existing ROWs and secures ROWs if needed. Requires the dedication of ROW and street improvement as a condition for the issuance of Building Permit for designated land uses such as multiple family, commercial, and industrial zones.

The administering agency for the above policy is the Imperial County DPW.

Construction of permanent structures for SSU6 Project, including perimeter fencing, shall take into consideration future roadway ROW needs.

**Imperial County General Plan, Circulation and Scenic Highway Element, Programs and Policies, 6.0 Transportation Demand Management, b. Policies.** The County prohibits the use of public streets for freight loading and unloading.

The administering agency for the above policy is the Imperial County DPW.

The SSU6 Project would include adequate construction laydown and staging area to avoid the use of public roadway facilities for freight loading and unloading activities.

**Imperial County Land Use Ordinance, Title 9, Division 17, Geothermal, 91701.01 General Standards.** All project activities shall be conducted in harmony with the area and consistent with requirements of public health, safety, comfort, convenience, and general welfare.

Traffic safety shall be considered in transporting equipment and materials to project sites. Signs and flagmen shall be used as determined by the Imperial County DPW. Transportation of oversize loads on County would be minimized. When planning for the transportation of oversize loads, the Imperial County DPW shall be contacted prior to finalizing shipment plans to ensure that acceptable transportation methods and routes can be developed. Transportation permits shall be obtained from the Imperial County DPW for oversized loads traveling on County roads.

The administering agency for the above standard is the Imperial County DPW for local roadways and Caltrans for state highways.

The SSU6 Project would include adequate safety measures for construction and material deliveries. Oversized loads would be transported via County approved routes, methods and with applicable permits.

**Airport Land Use Compatibility Plan.** Requires compatibility with the goals and objectives of the plan.

The administering entity for the above plan is the Imperial County Airport Land Use Commission.

The SSU6 Project would ensure that all proposed structures and transmission line facilities for SSU6 are compatible with the goals and objectives of the Airport Land Use Compatibility Plan.

### **5.10.6 References**

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## SECTION FIVE

## Environmental Information

### *Traffic and Transportation*

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Transportation Research Board National Research Council. 2000. *Highway Capacity Manual 2000*

**Table 5.10-1  
EXISTING TRAFFIC CHARACTERISTICS OF HIGHWAYS  
IN THE PROJECT AREA**

Highway	Location	Annual Average Daily Traffic <sup>1</sup>	Peak Hour Traffic <sup>1</sup>	Annual Average Daily Truck Traffic <sup>2</sup>	Percentage of Truck Traffic <sup>3</sup>	LOS <sup>4</sup>
SH-78/86	B Street to Center Street (Forrester Road)	8,100	710	3,200	40%	A
	Center Street (Forrester Road) to H Street	13,000	1,150	3,290	25%	A
SH-111	Sinclair Road to SH 115 (East)	7,000	690	1,477	21%	A

<sup>1</sup> Source: 2000 Traffic Volumes on the California State Highway System (Caltrans, 2001).

<sup>2</sup> Source: 2000 Truck Volumes on the California State Highway System (Caltrans, 2001).

<sup>3</sup> Percentages calculated using 2000 average daily truck traffic as a percentage of 2000 AADT.

<sup>4</sup> LOS = level of service. LOS from Highway Capacity Software (HCS): Multilane Highways Release 4.1 (see Table 5.10-2).

**Table 5.10-2  
LEVELS OF SERVICE<sup>1</sup>**

LOS	Description	Average Vehicle/Capacity Ratio
A	Free flow; insignificant delays	0.0 - 0.59
B	Stable operation; minimal delays	0.6 - 0.69
C	Stable operation; acceptable delays	0.7 - 0.79
D	Approaching unstable; queues develop rapidly but no excessive delays	0.8 - 0.89
E	Unstable operation; significant delays	0.9 - 0.99
F	Forced flow; jammed conditions	≥ 1.0

<sup>1</sup> As defined by Caltrans for highways.

LOS = level of service.

**Table 5.10-3  
EXISTING TRAFFIC CHARACTERISTICS OF  
LOCAL ROADWAYS IN THE PROJECT AREA**

Roadway	Location	Classification	Average Daily Traffic	Level of Service C Capacity	LOS <sup>[3]</sup>
Sinclair Road <sup>[1]</sup>	Between SH-111 and Gentry Road	Collector, 2-lane	1160	7,100	A
McKendry Road <sup>[2]</sup>	Between Severe Road and Gentry Road	Local, 2-lane	53	4,500	A <sup>[4]</sup>
Lindsey Road <sup>[2]</sup>	Between Gentry Road and Severe Road	Local, 2-lane	823	4,500	A <sup>[4]</sup>
Eddins Road <sup>[1]</sup>	Between SH-111 and Gentry Road	Collector, 2-lane	1354	7,100	A
Severe Road <sup>[2]</sup>	Between McKendry Road and Lindsey Road	Local, 2-lane	52	4,500	A <sup>[4]</sup>
Boyle Road <sup>[5]</sup>	Between McKendry Road and Peterson Road	Local, 2-lane	100 (est.)	4,500	A <sup>[4]</sup>
Gentry Road <sup>[1]</sup>	Between Sinclair Road and Lindsey Road	Collector, 2-lane	1350	7,100	A

<sup>1</sup> From Imperial County Traffic Count Database

<sup>2</sup> New counts taken on January 2002

<sup>3</sup> LOS from Imperial County Standard Street Classification (Table 4 Circulation/Open Space Element)

<sup>4</sup> According to the Circulation/Open Space Element (Table 4), Level of Service are not applied to residential streets because their primary purpose is to serve abutting lots, not to carry through traffic. Level of service normally applies to roads carrying through traffic between major trip generators and attractors.

<sup>5</sup> Estimated counts approximately double Severe Road counts, taken on January 2002.

LOS = level of service.

**Table 5.10-4  
EXISTING TRAFFIC CHARACTERISTICS OF  
INTERSECTIONS IN THE PROJECT AREA<sup>1</sup>**

Intersection	Signal Control	AM Peak Hour			PM Peak Hour		
		LOS	Delay	V/C	LOS	Delay	V/C
Gentry Road/McKendry Road	Unsignalized	A	9.6	***	A	8.8	***
Gentry Road/Lindsey Road	Unsignalized	A	9.6	***	A	9.3	***
Gentry Road/Eddins Road (North)	Unsignalized	A	8.6	***	A	8.4	***
Gentry Road/Eddins Road (South)	Unsignalized	A	9.4	***	A	9.5	***
Forrester Road/SH-78	4-Way Stop	A	9.6	0.209	B	10.1	0.264
SH-111/Sinclair Road	Unsignalized	B	10.2	***	B	10.8	***

<sup>1</sup> Unsignalized intersection LOS calculated using 2000 Highway Capacity Manual (HCM) Unsignalized Intersection methodology; 4-Way Stop intersection LOS calculated using 2000 HCM 4-Way Stop Intersection methodology.

\*\*\* No volume-to-capacity (V/C) ratio is calculated under 2000 HCM Unsignalized Intersection methodology.

**Table 5.10-5  
PLANT CONSTRUCTION WORKFORCE DISTRIBUTION**

Origin of Workforce Vehicle Travel to SSU6 Project Construction Site	Distribution Workforce	Peak Workforce
Niland	25.0%	112
Calipatria	25.0%	112
Brawley	25.0%	112
El Centro	25.0%	113
TOTAL	100%	449

**Table 5.10-6  
WORKFORCE VEHICLE GENERATION AND DISTRIBUTION**

Origin of Trip Distribution To/From Plant Site <sup>1</sup>	Peak Workforce	Peak Vehicle Trips
Niland	112	224
Calipatria	112	224
Brawley	112	222
El Centro	113	226
TOTAL	449	898

Source: Based on workforce estimates provided in Table 3.4.1

**Table 5.10-7  
DISTRIBUTION OF PLANT CONSTRUCTION-RELATED TRAFFIC ON HIGHWAYS<sup>1</sup>**

Highway/Roadway	Existing AADT	Existing LOS	Projected Added Vehicle Trips/Day	Added Vehicle Increase (%)	Projected Vehicle Trips/Day	Projected LOS
SH-78-86/B Street to Center Street (Forrester Road)	8,100	A	76	<1%	8,176	A
SH-78-86/Center Street (Forrester Road) to H Street	13,000	A	16	<1%	13,016	B
SH-111/Sinclair Road to SH-115 (East)	7,000	A	246	4%	7,246	A

<sup>1</sup> Combined Construction Truck Deliveries and Workforce.  
AADT = average annual daily traffic.  
LOS = level of service.



**Table 5.10-8  
DISTRIBUTION OF PLANT CONSTRUCTION-RELATED  
TRAFFIC ON LOCAL ROADS<sup>1</sup>**

Highway/Roadway	Existing AADT	Existing LOS	Projected Added Vehicle Trips/Day	Added Vehicle Increase (%)	Projected Vehicle Trips/Day	Projected LOS <sup>[3]</sup>
Sinclair Road [1]	1,160	A	478	41%	1,638	A
McKendry Road [2]	53	A <sup>[4]</sup>	930	1754%	983	A <sup>[4]</sup>
Lindsey Road [2] [5]	823	A <sup>[4]</sup>	81	10%	904	A <sup>[4]</sup>
Eddins Road [1]	1,354	A	360	27%	1,714	A
Severe Road [2]	52	A <sup>[4]</sup>	10 (est.)	19%	62	A <sup>[4]</sup>
Boyle Road [6]	100 (est.)	A <sup>[4]</sup>	930	930%	1,030	A <sup>[4]</sup>
Gentry Road [1]	1,350	A	452	33%	1,802	A

<sup>1</sup> From Imperial County Traffic Count Database

<sup>2</sup> New counts taken on January 2002

<sup>3</sup> LOS from Imperial County Standard Street Classification (Table 4 Circulation/Open Space Element)

<sup>4</sup> According to the Circulation/Open Space Element (Table 4), Level of Service are not applied to residential streets because their primary purpose is to serve abutting lots, not to carry through traffic. Level of service normally applies to roads carrying through traffic between major trip generators and attractors.

<sup>5</sup> Segment not a significant access route to project site

<sup>6</sup> Estimated counts approximately double Severe Road counts, taken on January 2002.

LOS = level of service.

**Table 5.10-9**  
**INTERSECTION LEVEL OF SERVICE WITH**  
**COMBINED CONSTRUCTION TRUCK DELIVERIES AND WORKFORCE**

Intersection	Existing AM Peak Hour			Existing PM Peak Hour			AM Peak Hour with Plant Construction			PM Peak Hour with Plant Construction			Impact Yes/No
	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	
Gentry Road/McKendry Road	A	9.6	***	A	8.8	***	C	23.6	***	B	14.6	***	No
Gentry Road/Lindsey Road	A	9.6	***	A	9.3	***	B	11.5	***	B	12.7	***	No
Gentry Road/Eddins Road (North)	A	8.6	***	A	8.4	***	B	10.0	***	A	8.4	***	No
Gentry Road/Eddins Road (South)	A	9.4	***	A	9.5	***	A	9.7	***	A	9.9	***	No
Forrester Road/SH-78 [1]	A	9.6	0.209	B	10.1	0.264	A	9.8	0.213	B	10.4	0.273	No
SH-111/Sinclair Road	B	10.2	***	B	10.8	***	B	13.3	***	B	14.6	***	No

1 - Four-way-stop controlled; all other intersections are two-way-stop controlled.

LOS = level of service.

V/C = average vehicle/capacity ratio.

**Table 5.10-10  
SUMMARY OF LAWS, ORDINANCES, REGULATIONS, AND STANDARDS**

Jurisdiction	LORS	Requirements	Conformance Section	Administering Agency	Agency Contact
<b>5.10 Traffic and Transportation</b>					
<b>Federal</b>					
	Title 49, Code of Federal Regulations, Section 171-177	Governs the transportation of hazardous materials, including the marking of transportation vehicles.	Section 5.10.5.1	California Highway Patrol	2
	Title 14, Code of Federal Regulations, Section 77.13(2)(i)	Requires applicant to notify FAA of any construction greater than height limits defined by the FAA.	Section 5.10.5.1	Federal Aviation Administration	1
<b>State</b>					
	California Vehicle Code, Section 353	Defines the hazardous materials.	Section 5.10.5.2	California Highway Patrol	2
	California Vehicle Code, Section 2500-2505	Authorizes the issuance of licenses by the Commissioner of the California Highway Patrol for the transportation of hazardous materials including explosives.	Section 5.10.5.2	California Highway Patrol	2
	California Vehicle Code, Sections 13369, 15275, 15278	Addresses the licensing of drivers and the classification of license required for the operation of particular types of vehicles. Additionally, these sections require the possession of certificates of permitting the operation of vehicles transporting hazardous materials.	Section 5.10.5.2	California Department of Motor Vehicles	4
	California Vehicle Code, Section 31303-31309	Requires transporters of hazardous materials to use the shortest route possible.	Section 5.10.5.2	California Highway Patrol	2
	California Vehicle Code, Section 31600-31620	Regulates the transportation of explosive materials	Section 5.10.5.2	California Highway Patrol	2
	California Vehicle Code, Section 32000-32053	Regulates the licensing of carriers of hazardous materials and noticing requirements	Section 5.10.5.2	California Highway Patrol	2

**Table 5.10-10 (continued)**  
**SUMMARY OF LAWS, ORDINANCES, REGULATIONS, AND STANDARDS**

	California Vehicle Code, Section 32100-32109	Transporters of inhalation hazardous materials or explosive materials must obtain a Hazardous Materials Transportation License.	Section 5.10.5.2	California Highway Patrol	2
	California Vehicle Code, Section 34000-34100	Establish special requirements for the flammable and combustible liquids over public roads and highways.	Section 5.10.5.2	California Highway Patrol	2
	California Vehicle Code, Section 34500	Regulate the safe operation of vehicles, including those that are used for the transportation of hazardous materials.	Section 5.10.5.2	California Highway Patrol	2
	California Vehicle Code, Section 35550	Imposes weight guidelines and restrictions on vehicles travelling on freeways and highways.	Section 5.10.5.2	California Department of Transportation	3
	California Vehicle Code, Section 35780	Requires approval for a permit to transport oversized or excessive load over state highways.	Section 5.10.5.2	California Department of Transportation	3
	California Streets and Highways Code, Sections 117	Permits for the location in the ROW of any structures or fixtures necessary to telegraph, telephone, or electric power lines or of any ditches, pipes, drains, sewers, or underground structures.	Section 5.10.5.2	California Department of Transportation	3
	California Streets and Highways Code, Sections 660, 670, 672, 1450, 1460, 1470, 1480 et seq.	Defines highways and encroachment. Regulate ROW encroachment and the granting of permits with conditions for encroachment in state and county roads.	Section 5.10.5.2 Section 5.10.5.3	California Department of Transportation and Imperial County	3,5,6
	California Health and Safety Code, Section 25160 et seq.	Addresses the safe transport of the hazardous materials.	Section 5.10.5.2	California Highway Patrol	2

**Table 5.10-10 (continued)**  
**SUMMARY OF LAWS, ORDINANCES, REGULATIONS, AND STANDARDS**

	California Department of Transportation Traffic Manual, Section 5-1.1	Requires Traffic Control Plans to ensure continuity of traffic during roadway construction.	Section 5.10.5.3	Imperial County	5,6
<b>Local</b>					
	Imperial County General Plan, Circulation and Scenic Highway Element, Programs and Policies, 1.0 Circulation and Scenic Highways Plan, c. New Local Roads	c. (New Local Roads). Requires new development to provide local roads to serve the direct needs of the abutting property.	Section 5.10.5.3	Imperial County	5,6
	Imperial County General Plan, Circulation and Scenic Highway Element, Programs and Policies, 1. Circulation and Scenic Highways Plan, f. private streets	f. (Private Streets). The County may permit construction of private streets within individual developments with conditions.	Section 5.10.5.3	Imperial County	5,6
	Imperial County General Plan, Circulation and Scenic Highway Element, Programs and Policies, 2. Ordinance Review	Zoning Regulation and the setback portions. Ensures that future construction will not interfere with present and potential highway needs. Analyzes the adequacy of existing ROWs and secures ROWs if needed. Requires the dedication of ROW and street improvement as a condition for the issuance of Building Permit for designated land uses.	Section 5.10.5.3	Imperial County	5,6

**Table 5.10-10 (continued)**  
**SUMMARY OF LAWS, ORDINANCES, REGULATIONS, AND STANDARDS**

	Imperial County General Plan, Circulation and Scenic Highway Element, Programs and Policies, 6. Transportation Demand Management, b. Policies	b. (Policies) The County shall prohibit the use of public streets for freight loading and unloading.	Section 5.10.5.3	Imperial County	5,6
	Imperial County Land Use Ordinance, Title 9, Division 17, Geothermal, 91701.01 General Standards	(n) All project activities shall be conducted in harmony with the area and consistent with requirements of public health, safety, comfort, convenience, and general welfare.	Section 5.10.5.3	Caltrans (State Highways) Imperial County (Local Roads)	3,5,6
	Airport Land Use Compatibility Plan	Requires that the SSU6 facility comply with the plan.	Section 5.10.5.3	Imperial County Airport Land Use Commission	7

**Table 5.10-11  
AGENCY CONTACT LIST FOR LAWS, ORDINANCES, REGULATIONS, AND  
STANDARDS**

<b>Federal</b>					
1	Karen McDonald 310.725.6557 Federal Aviation Administration Western Pacific Region AWP5202 15000 Aviation Boulevard, Lawndale, CA 90261-1002				
<b>State</b>					
2	Hector Tavares 760.482.2500 California Highway Patrol 2331 Highway 86 Imperial, CA 92251	3	Siong Yap 909.383.7513 Caltrans South Region Permits Office MS# 618 655 West 2nd Street, San Bernardino, CA 92404- 1400	4	Eda Thomas 916.657.6870 Department of Motor Vehicles, Licensing Operations Division 2415 1st Avenue Mail Station F101 Sacramento, CA 95818
<b>Local</b>					
5	Tim Jones 916.774.5339 Public Works Director Imperial County Public Works Department 155 S. 11th Street El Centro, CA 92243	6	Neil Jorgenson 916.774.5339 Traffic Engineer Imperial County Public Works Department 155 S. 11th Street El Centro, CA 92243	7	Airport Land Use Commission through Cathy McDonald 760.482.4462 Trans. Planning Analyst Imperial County Planning Department 155 S. 11th Street El Centro, CA 92243